UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,539	10/16/2003	Takuji Maeda	2003_1475A	5980

513   7590   07/09/2007
WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER
YAARY, MICHAEL D

ART UNIT	PAPER NUMBER
2193	

MAIL DATE	DELIVERY MODE
07/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/685,539	MAEDA ET AL.
	Examiner	Art Unit	
	Michael Yaary	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 May 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>3-12,16 and 17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>3-12,16 and 17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____.

3)☐ Information Disclosure Statement(s) (PTO/SB/08)   5)☐ Notice of Informal Patent Application

    Paper No(s)/Mail Date _____.   6)☐ Other: _____.

DETAILED ACTION

1.   Claims 3-12, 16, and 17 are pending in the application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 3-5, 10, 11, 16, and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Howard (US Pub 2002/0078244) in view of Nakashima et al.

(hereafter Nakashima)(US Pat. 5,930,825).

4.   Howard and Nakashima were cited in the previous office action dated

02/08/2007.

5.   **As to claims 3, 16 and 17,** Howard discloses a file-update apparatus, which is

able to mount a removable first recording medium and execute a plurality of update

procedures to update a file on the first recording medium ([0029], lines 3-10 and [0006],

lines 6-10), said file-update apparatus comprising:

A progress recording unit operable to record, onto said second recording medium, progress information showing which of the update procedures have been executed in updating the file ([0057], lines 1-8 disclose the process including detecting when an update to a file occurs, thus indicating the progress information of the procedures executed.);

A new-data recording unit operable to record, onto the first recording medium, data constituting a content of the file after updating the file, in a different storage location from the data constituting the content of the file before updating the file ([0057], lines 1-3);

An update information recording unit operable to record, onto the second recording medium, update information showing the storage location, on the first recording medium, of the data constituting the content of the file after updating the file ([0071], lines 1-3);

An updating unit operable, after the update information has been recorded onto said second recording medium, and if no interruption of the update procedures has taken place, to update the location information on the first recording medium based on the update information, so as to show the storage location of the data constituting the content of the file after updating the file ([0071], lines 3-5);

A recovery unit operable, if an interruption of the procedures has taken place, and if a predetermined condition is satisfied, to determine which of the plurality of update procedures has been executed based on the progress information, and on a basis of the determination, to update the location information on the first recording

medium so as to show the storage location of the data constituting one of the content of the file after updating the file or the content of the file before updating ([0057], lines 3-8 and [0071], lines 1-3).

6.   Howard does not disclose an ID recording unit operable, before the updating of the file, to read unique medium identifier information from the first recording medium, and to hold the medium identifier information within said file-update apparatus; and a recovery suppressing unit operable to read medium identifier information from a removable recording medium mounted in said file-update apparatus, compare the read medium identifier information with the held medium identifier information, and suppress the updating of the location information by said recovery unit if the read medium identifier information does not match the held medium identifier information.

However, Nakashima discloses an ID recording unit operable, before the updating of the file, to read unique medium identifier information from the first recording medium, and to hold the medium identifier information within said file-update apparatus; and a recovery suppressing unit operable to read medium identifier information from a removable recording medium mounted in said file-update apparatus, compare the read medium identifier information with the held medium identifier information, and suppress the updating of the location information by said recovery unit if the read medium identifier information does not match the held medium identifier information (Abstract lines 1-8; column 4, lines 1-36; and column 7, lines 28-47 disclose preventing

unauthorized access by comparing an original stored medium ID to the current medium

ID. Thus, not allowing access to software or data if the IDs do not match.)

7.   Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify Howard, by incorporating an authorization feature as in

storing and comparing medium IDs, as taught by Nakashima, for the benefit of

preventing unauthorized users to gain illegal access to software files and data.

8.   **As to claim 4,** Howard further discloses the location information shows storage

locations of data constituting contents of all files on the first recording medium (Inherent

in [0057], lines 1-9 as the location information would be applied to all files stored, not

only one.),

        Said file-update apparatus targets a plurality of the files for updating ([0060], lines

9-11 disclose multiple files being updated.),

        Said progress recording unit records progress information for each targeted file

([0057], lines 1-9 disclose the process including detecting when an update to a file

occurs, thus indicating the progress information of each file of the procedures

executed.),

        Said new-data recording unit conducts, for each targeted file, the recording, onto

the first recording medium, of data constituting a content of the file after updating

([0057], lines 1-3),

Said update information recording unit conducts the recording of update

information, for each file that has undergone data recording by the new-data recording

unit ([0060], lines 9-11),

Said updating unit conducts, for each file for which update information has been

recorded, the updating of location information based on the update information of the

file ([0071], lines 1-3), and

Said recovery unit, if an interruption of the update procedures has taken place,

and if the predetermined condition is satisfied, conducts the updating of location

information for each file, when judged, based on the progress information of the file, that

update information relating to the file has been recorded ([0057], lines 3-9 and [0071],

lines 1-3).

9.   **As to claim 5,** Howard further discloses a close instruction receiving unit

operable to receive a close instruction relating to individual files that have undergone

data recording by said new-data recording unit [0051], lines 1-3),

Wherein the progress information includes information for identifying whether a

close instruction has been received ([0051], lines 5-8 disclose checking for error, thus

determining if a close instruction was received or not.),

Said updating unit conducts, for each file, the updating of location information,

only after update information relating to the file has been recorded and a close

instruction relating to the file has been received ([0006], lines 13-21), and

Said recovery unit if an interruption of the update procedures has taken place, and if the predetermined condition is satisfied, conducts the updating of location information for each file, only when judged, based on the progress information of the file, that update information relating to the file has been recorded and a close instruction relating to the file has been received ([0006], lines 13-21).

10.   **As to claim 10,** Howard discloses the location information is formed from (ii) second location information showing storage locations, within the normal area, of data constituting contents of all files in the normal area; the progress information is formed from (ii) second progress information showing, for each file in the normal area, which of the update procedures have been executed in updating the file; said new-data recording unit ii) conducts, for each file in the normal area targeted for updating, the recording, into the normal area, of data constituting a content of the file after updating ([0057], lines 1-3); the update information is formed from (ii) second update information showing, for each file in the normal area that has undergone data recording by the new-data recording unit, the storage location, within the normal area, of data constituting the post-update file content ([0071], lines 1-3); said updating unit conducts, (ii) for each file in the normal area for which second update information has been recorded, the updating of second location information based on the second update information of the file ([0071], lines 1-3), and

Nakashima discloses the first recording medium includes an authentication area and a normal area that are mutually independent; a predetermined access restriction

applying to only the authentication area of the two areas; the location information is

formed from (i) first location information showing storage locations, within the

authentication area, of data constituting contents of all files in the authentication area;

the progress information is formed from (i) first progress information showing, for each

file in the authentication area, which of the update procedures have been executed in

updating the file; the new-data recording unit (i) conducts, for each file in the

authentication area targeted for updating, the recording, into the authentication area, of

data constituting a content of the file after updating, the update information is formed

from (i) first update information showing, for each file in the authentication area that has

undergone data recording by the new-data recording unit, the storage location, within

the authentication area, of data constituting the post-update file content; and the

updating unit (i) conducts, for each file in the authentication area for which first update

information has been recorded, the updating of first location information based on the

first update information of the file. (Column 3, lines 37-58 disclose using a recording

medium in which an authorization process is incorporated, thus disallowing

unauthorized users access to the content of the recording medium. As a result, this type

of area in a recording medium can be integrated with the normal area, not using

predetermined access, of a recording medium in order to perform the same procedures

as described above in the normal area.)

11.   **As to claim 11,** Howard further discloses the first recording medium is a flash memory ([0029], lines 3-5), and said second recording medium is a memory that is accessible faster than the first recording medium ([0039], lines 3-5

12.   Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard in view of Nakashima as applied to claim 4 above, and further in view of Applicant Admitted Prior Art (hereafter AAPA).

13.   **As to claim 6,** Howard and Nakashima do not disclose the first recording medium stores (i) FAT information showing, for each of a plurality of clusters on the first recording medium, whether data constituting any file content is stored in the cluster, and that clusters storing data constituting the content of the same file are linked, and (ii) directory information showing, for each file on the first recording medium, the first cluster storing data constituting the content of the file, the location information is formed from the directory information and all FAT information except for unused-cluster information, said unused cluster being FAT information showing clusters that do not store data constituting any file content, the update information relating to each file that has undergone data recording by the new-data recording unit is formed from (i) consecutive-relation information showing that clusters storing data constituting the content of the file after updating are linked, and (ii) entry information showing the first

cluster storing data constituting the content of the file after updating the file, said

updating unit, for each file for which update information has been recorded, updates (i)

the FAT information based on the consecutive-relation information of the file, so as to

show that clusters storing data constituting the content of the file after updating are

linked, and (ii) directory information relating to the file based on the entry information of

the file, so as to show the first cluster storing data constituting the content of the file

after updating the file, and said recovery unit updates the location information by

updating the FAT information based on the consecutive-relation information and the

directory information based on the entry information.

However, AAPA discloses the first recording medium stores (i) FAT information

showing, for each of a plurality of clusters on the first recording medium, whether data

constituting any file content is stored in the cluster (page 3, lines 6-11; and page 3, line

22 - page 4, line 5), and that clusters storing data constituting the content of the same

file are linked (page 4, lines 16-19), and (ii) directory information showing, for each file

on the first recording medium, the first cluster storing data constituting the content of the

file (page 4, lines 5-8),

The location information is formed from the directory information and all FAT

information except for unused-cluster information, the unused-cluster being FAT

information showing clusters that do not store data constituting any file content (page 4,

lines 20-23),

The update information relating to each file that has undergone data recording by

said new-data recording unit is formed from (i) consecutive-relation information showing

that clusters storing data constituting the content of the file after updating are linked

(page 5, lines 5-11), and (ii) entry information showing the first cluster storing data

constituting the content of the file after updating the file (page 5, lines 18-20),

Said updating unit, for each file for which update information has been recorded,

updates (i) the FAT information based on the consecutive-relation information of the file,

so as to show that clusters storing data constituting the content of the file after updating

are linked (page 5, lines 5-11), and (ii) directory information relating to the file based on

the entry information of the file, so as to show the first cluster storing data constituting

the content of the file after updating the file (page 5, lines 18-20), and

Said recovery unit updates the location information by updating the FAT

information based on the consecutive-relation information and the directory information

based on the entry information (page 5, lines 15-17)

14.   Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention, to modify the teachings of Howard and Nakashima by

implementing a FAT based system and apparatus for performing file updates as taught

by AAPA, for the benefit of maintaining a well-organized, non-complicated system for

updating files.

15.   **As to claim 7,** AAPA discloses an area-release unit operable, for each file for

which update information has been recorded, to record, onto said second recording

medium, free-space information showing that clusters which stored data constituting the

content of the file before updating do not store data constituting any file content (page 5, lines 18-20), wherein

Said updating unit conducts the updating of the FAT information so that the free-space information is reflected in the unused-cluster information (page 5, lines 15-17), and

Said recovery unit conducts the updating of the FAT information so that the free-space information is reflected in the unused-cluster information (page 5, lines 15-17).

16.   **As to claim 8,** Howard discloses a FAT-information copying unit operable, before the updating of any of the files, to copy the FAT information on the first recording medium into a working FAT area on said second recording medium, as working FAT information ([0041], lines 1-8 disclose copying from a storage (first recording medium) information such as inodes (analogous to FAT information), to be stored in cache (RAM, second recording medium); a close instruction receiving unit operable to receive a close instruction relating to individual files that have undergone data recording by said new-data recording unit ([0051], lines 1-3 and [0075], lines 1-3); the progress information includes information for identifying whether a close instruction has been received ([0051], lines 5-8 disclose checking for error, thus determining if a close instruction was received or not.); said updating unit updates the FAT information based on the working FAT information ([0006], lines 10-17 discloses updating an inode based on working inode copy, thus being analogous to updating FAT information.); and said recovery unit, if an interruption of the update procedures has taken place, and if the predetermined

condition is satisfied, (i) makes the working FAT information reflect, for each file,

consecutive-relation information and free-space information that relate to the file, when

judged, based on the progress information of the file, that a close instruction relating to

the file has been received, (ii) updates the FAT information based on the working FAT

information, and (iii) updates the directory information based on the entry information of

each file whose progress information shows that a close instruction has been received

([0023], lines 13-15; [0041], lines 1-8; and [0052], lines 1-6 disclose the procedures

being done in an analogous inode environment), and

AAPA discloses said new-data recording unit records data constituting the

content of the file after updating the file into clusters not storing data, based on (i) the

working FAT information and (ii) the used-area information or the consecutive-relation

information (page 4, lines 2-3); and the update information recording unit makes the

working FAT information reflect (i) the consecutive-relation information of each file for

which a close instruction has been received (page 5, lines 5-14), and (ii) free-space

information that shows clusters which stored data constituting the content of the file

before updating do not store data constituting any file content (page 5, lines 15-17).

17.   **As to claim 9,** Howard discloses an update instruction receiving unit operable, at

a time of re-updating, to receive an update instruction indicating that if the first recording

medium stores data constituting post-update file content, the location information is to

be updated so as to show the storage location of the data ([0057, lines 1-4 disclose an

update being detected, stored in a different location, and referenced with a pointer to show the new storage location of data.), and

AAPA discloses said recovery unit, if an interruption of the update procedures has taken place, and if the predetermined condition is satisfied and the update instruction has been received, makes the working FAT information, prior to use in updating the FAT information, reflect for each file, consecutive-relation information and free-space information that relate to the file, when judged, based on the progress information of the file, that update information relating to the file has been recorded (page 5, lines 5-17).

18.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howard in view of Nakashima as applied to claim 11 above, and further in view of Yoo (US Pub. 2002/0059570).

19.   Yoo was cited in the previous office action dated 02/08/2007.

20.   **As to claim 12,** Howard discloses the second recording medium is a RAM ([0039], lines 7-9).

Howard and Nakashima do not disclose said second medium has power supplied by a power source that is independent from a power source of the first recording medium.

However, Yoo discloses said second medium has power supplied by a power source that is independent from a power source of the first recording medium (Abstract lines 12-17 and [0032], lines 1-3 disclose how OS software can be reinstalled due to damage or critical error. In this installation process, the extended RAM uses an auxiliary power supply.).

21.　　Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Howard and Nakashima by, utilizing an auxiliary power supply for a particular storage medium as taught by Yoo, for the benefit of preserving pertinent information when power is disrupted.

Response to Arguments

22.　　Applicant's arguments filed 05/08/07 for claims 3-12, 16, and 17 have been fully considered but they are not persuasive.

23.　　Applicant argues in the remarks that: (A) that if Nakashima was combined with Howard, the resulting combination would not suggest that a unique medium identifier is read before the updating of the file, and (B), updating of location information is suppressed if the read medium identifier does not match the held medium identifier information.

24.   Examiner respectfully disagrees with applicant's remarks.

As to point (A): Nakashima in fact does disclose a unique medium identifier being read (column 4, lines 1-35). Disclosed is an original medium ID being recorded. With the original ID being recorded, it is now available for future comparison with the medium ID to allow access for performing a task, in the case of Nakashima preventing unauthorized use of software. In such, the original stored medium ID is compared with the current medium ID to find a match, and thus allows access if a match is found and disallows access if the IDs disagree. Therefore, this act of matching up identifiers prevents access to perform a subsequent task. In Nakashima it is to prevent access to unauthorized software. The steps of Nakashima are not limiting and can be applied to other such cases. When combined with the file updating and fast crash recovery apparatus of Howard, the steps would prevent updating and recovery from taking place to unauthorized recording mediums. One of ordinary skill in the art would look to the teachings of Nakashima to modify the teachings of Howard to obtain the instant invention, as it provides an effective way of preventing unlawful access, and thus preventing the attempt of updating files by unauthorized users.

25.   As to point (B): The combination of Howard and Nakashima in fact does disclose suppressing the updating of the location information by said recovery unit if the read medium identifier information does not match the held medium identifier information. Howard discloses pointers to the new locations of the updated files ([0057] and [0071].

These pointers would be suppressed, or not made available to unauthorized users

when the teachings of Nakashima are combined with the teachings of Howard, as

unauthorized users with mediums containing non-matching IDs would not have access

to location information, file updates, or any other data.

Conclusion

26.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael Yaary whose telephone number is (571) 270-

1249. The examiner can normally be reached on Monday-Friday, 8:00 a.m - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MY

MENG-AI T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100